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Datasheet for the decision
of 21 January 2014

Case Number: T 1080/10 – 3.3.10
Application Number: 01109352.3
Publication Number: 1250914
IPC: A61L15/20

Language of the proceedings: EN

Title of invention:
Cooling compositions

Patent Proprietor:
THE PROCTER & GAMBLE COMPANY

Opponents:
Paul Hartmann AG
Henkel AG & Co. KGaA

Headword:
Procter & Gamble / cooling compositions

Relevant legal provisions:
EPC Art. 123, 54, 56, 100(c), 111(1)

Keyword:
Grounds for Opposition – fresh ground for opposition (yes)
Grounds for Opposition – extent of power to examine
Main request: obvious alternative
First auxiliary request: inventive step (yes)
Remittal to the department of first instance (yes)
Decisions cited:
G 0010/91, T 0001/80, T 0020/81, T 0024/81, T 0248/85

Catchword:
Case Number: T 1080/10 - 3.3.10

DECISION

of Technical Board of Appeal 3.3.10

of 21 January 2014

Appellant: THE PROCTER & GAMBLE COMPANY
(Patent Proprietor)
One Procter & Gamble Plaza
Cincinnati, OH 45202 (US)

Representative: Anderson, James Edward George
Elkington and Fife LLP
Prospect House
8 Pembroke Road
Sevenoaks, Kent TN13 1XR (GB)

Respondent I: Paul Hartmann AG
(Opponent 1)
Paul-Hartmann-Strasse 12
89522 Heidenheim (DE)

Representative: Dreiss
Patentanwälte
Postfach 10 37 62
70032 Stuttgart (DE)

Respondent II: Henkel AG & Co. KGaA
(Opponent 2)
VTF Patente
40191 Düsseldorf (DE)

Decision under appeal: Decision of the Opposition Division of the European Patent Office posted on 19 March 2010 reversing European patent No. 1250914 pursuant to Article 101(3)(b) EPC.

Composition of the Board:
Chairwoman: J. Mercery
Members: C. Komenda
          F. Blumer
Summary of Facts and Submissions

I. The Appellant (Patent Proprietor) lodged an appeal against the decision of the Opposition Division which revoked the European patent Nr. 1 250 914.

II. Notice of Opposition had been filed by Respondents I and II (Opponents 1 and 2, respectively) requesting revocation of the patent in its entirety on the grounds of lack of novelty and lack of inventive step (Article 100(a) EPC). In the opposition proceedings the following documents were cited:

(E1) EP-B-0 644 749,
(E2) DE-A-26 08 226 (corresponding to document (D2)),
(E3) EP-A-0 988 852,
(E4) WO-A-95/11035,
(E5) WO-A-97/42944,
(E6) EP-B-0 641 187,
(E7) WO-A-00/62737,
(E7a) Exc. Römpp Lexikon Chemie, online 2006 ("p-Menthenole"),
(E8) JP-A-10 231 238,
(E8a) Machine translation of document (E8),
(E9) WO-A-00/42983 (corresponding to document (D6)),
(E10) US-A-4 844 883 (corresponding to document (D1)),
(E10a) Römpp Lexikon Chemie (1998), page 3217,
(E11) documents concerning prior use,
(E12) GB-A-1 095 505,
(D1) US-A-4 844 883 (corresponding to document (E10)),
(D1a) Römpp Lexikon Chemie (1998), page 3217
    (corresponding to document (E10a)),
(D2) DE-A-26 08 226 (corresponding to document (E2)),

(D3) JP-A-04 337 395,
(D3a) Derwent Abstract of document (D3),
(D4) WO-A-93/23005,
(D5) US-A-6 001 341,
(D5a) Exc. CTFA online, "C12-13 Alkyl Lactate",
(D6) WO-A-00/42983 (corresponding to document (E9)) and
(D7) Umbach: "Kosmetik - Entwicklung, Herstellung und

III. In the decision under appeal, the Opposition Division held that the subject-matter of the claims according to the then pending main and auxiliary requests was novel over the cited prior art, the alleged prior use supported by document (E11) not however being taken into account in view of the negative conclusion on inventive step. Document (E12) was considered to represent the closest state of the art. In the absence of any comparative data, the objective technical problem could only be seen as to provide an alternative. The solution suggested by the patent in suit was to add a combination of a menthol derivative as a cooling agent in combination with the specific esters of formulae (I) or (II) to the topsheet of a diaper. Since the skilled person knew these cooling agents and the esters from any of documents (D3), (E10) or (E7), the solution was regarded as being obvious.

IV. With its statement of the grounds for appeal the Appellant filed a new main request and a first and second auxiliary request. The first and second auxiliary requests corresponded to the main and auxiliary requests, respectively, on which the decision under appeal was based. Claim 1 of the main request read as follows:
"1. A diaper or feminine protection article containing a composition comprising
(a) a cooling agent selected from the group consisting of
- ketals,
- carboxamides,
- cyclohexanol derivatives according to the following general formulae:

(1)

\[
\begin{array}{c}
\text{OH} \\
\text{OR}
\end{array}
\]

wherein R represents a linear or branched alkyl group having 1 to 5 carbon atoms;

(2)

\[
\begin{array}{c}
\text{OH} \\
\text{R'} \\
\text{R''}
\end{array}
\]

wherein R\(^1\) and R\(^2\) are independently hydrogen, or a linear or branched alkyl group having 1 to 5 carbon atoms;
- cyclohexyl derivatives according to the following general formula
wherein R represents -H, a C₁-C₅ linear or branched alkyl group, a C₁-C₅ alkenyl group, a C₁-C₅ alkoxy group or a C₁-C₅ acyloxy group, R₁ represents -H, or a linear or branched alkyl group having 1 to 5 carbon atoms, with the exception of those wherein both R and R₁ are hydrogen or wherein R₁=H and R is propanediol, carboxy-hydroxyethyl or carboxy hydroxypropyl; - cyclohexyl derivative of the formula

- borneol, tea tree oil, and mixtures thereof;

(b) together with an ester derivative of following formulae:
wherein \( R_1 \) and \( R_2 \) are independently an alkyl, alkenyl, arylalkyl, hydroxyalkyl, alkoxy groups of from 2 to 24 carbon atoms, hydroxy group or hydrogen group; \( R_3 \), \( R_4 \), \( R_5 \), and \( R_6 \) are independently an alkyl, alkenyl, arylalkyl, hydroxyalkyl, alkoxy groups of from 1 to 24 carbon atoms, hydroxy group or hydrogen group; \( A \) and \( B \) are independently a \( C_1-C_6 \) linear or branched alkylene, alkyl, alkenylene, alkoxyylene, alkoxy, hydroxyalkylene, hydroxyalkyl groups; the values of \( x \) are independently from 0 to 15; the values of \( y \) are independently 0 or 1, or

wherein wherein \( R_1 \), \( R_2 \) and \( R_3 \) are independently an acyl, alkyl or alkenyl or hydroxyalkyl group with from 1 to 22 carbon atoms, and \( R_4 \), \( R_5 \), \( R_6 \), \( R_7 \) and \( R_8 \) are independently selected from the group consisting of \( C_1-C_{10} \) linear or branched alkyl, acyl, alkenyl,
hydroxyalkyl or alkoxy groups, hydroxy, chloride, bromide, amine or hydrogen, or mixture thereof."

Claim 1 of the first auxiliary request differed from claim 1 of the main request only in that the composition was contained in the topsheet structure of the diaper or feminine protection article.

Claim 1 of the second auxiliary request differed from claim 1 of the first auxiliary request in that component (b) of the composition was restricted to ester derivatives of formula (II).

V. The Appellant stated that the closest state of the art represented by document (E12) did not only fail to disclose the specific ester according to component (b) of the composition, but also component (a) did not cover menthol, which was used in document (E12). Starting from this prior art document, the problem was to provide a diaper or feminine protection article having improved comfort for the wearer. The solution suggested by the patent in suit, which consisted in selecting specific cooling agents (a) in combination with specific esters (b) was not obvious from the prior art. The closest state of the art described menthol only as a disinfectant or a deodorant compound, but did not recognise it as a cooling compound. Therefore, the skilled person would not have considered the other prior art documents, which related to cooling compositions, when looking for a solution to the above mentioned problem. With regard to the auxiliary requests, he would have had no incentive to modify the diaper of document (E12) and add these compounds to the topsheet structure of the diaper instead of adding it to the cellulosic pulp, which formed the absorbent core
of the diaper. Therefore, the subject-matter of all requests involved an inventive step.

VI. In its reply dated 7 December 2010, Respondent I again referred to the alleged public prior use, supported by document (E11) submitted during the opposition proceedings, which, however, was not dealt with in the decision under appeal. Further, it mentioned for the first time an objection under Article 100(c) EPC. In particular it stated that during the examination phase the cyclohexyl compounds (a) according to the third formula were restricted to exclude those "wherein both R and R1 are hydrogen or ... carboxy hydroxypropyl". Such a restriction was, however, not disclosed in the original application documents. With regard to inventive step, he argued that starting from document (E12) as closest state of the art, the claimed subject-matter was obvious from any of the other cited documents (E1) to (E11).

VII. Respondent II brought forward that the subject-matter of claim 1 according to all requests did not involve an inventive step starting from either document (D4) in combination with documents (E12), (D5) or (D7), or alternatively, starting from document (E12) in combination with documents (E7), (D5) or (D7).

VIII. With letters dated 10 December 2013 and 23 October 2013, respectively, Respondents I and II informed the Board that they would not attend the oral Proceedings scheduled for 21 January 2014.

IX. The Appellant (Patent Proprietor) requested that the decision under appeal be set aside and that the patent be maintained on the basis of claims 1 to 8 according to the main request, or, subsidiarily, on the basis of
claims 1 to 7 according to the first or the second auxiliary requests, all requests as filed with letter dated 29 July 2010.

The Respondents I and II requested in writing that the appeal be dismissed.

X. At the oral proceedings before the Board, held on 21 January 2014, the Appellant did not agree to the introduction of the fresh ground for opposition according to Article 100(c) EPC. At the end of the oral proceedings, held in the absence of Respondents I and II, the decision of the Board was announced.

Reasons for the Decision

1. The appeal is admissible.

2. New ground of opposition

With its letter dated 7 December 2010 Respondent I raised for the first time an objection under Article 100(c) EPC, relating to the restriction of component (a) (see paragraph VI supra).

This amounts to a fresh ground for opposition brought forward for the first time during the appeal phase. According to the decision G 10/91 of the Enlarged Board of Appeal, a new ground for opposition may be introduced into the appeal proceedings only with the consent of the Patent Proprietor (G 10/91, OJ 1993, 420, paragraph 3 of the Opinion).

In the present case, the Appellant stated during the oral proceedings before the Board that it did not give
its consent to the new ground for opposition being introduced into the proceedings.

Consequently, this new ground for opposition is not introduced into the proceedings.

Main Request

3. Amendments

Claim 1 of the main request is based on the wording of claim 1 as granted, which has been amended from "a composition" to "a diaper or feminine protection article" containing the composition as claimed in granted claim 1. This restriction finds a basis on page 30, lines 4 to 6 of the application as originally filed. These amendments were not objected to by the Respondents.

Since the amendment also restricts the scope of claim 1 as granted, the Board is satisfied that the amendments fulfil the requirements of Article 123(2) and (3) EPC.

4. Inventive step

4.1 According to the established jurisprudence of the Boards of Appeal it is necessary, in order to assess inventive step, to establish the closest state of the art, to determine the technical results of or effects successfully achieved by the claimed invention vis-à-vis the closest state of the art, to define the technical problem to be solved as the object of the invention to achieve these results or effects, and to examine the obviousness of the claimed solution to this problem in view of the state of the art (see decisions T 1/80, OJ EPO 1981, 206, points 3, 5, 8, 11 of the
reasons; T 20/81, OJ EPO 1982, 217, point 3 of the reasons; T 24/81, OJ EPO 1983, 133, point 4 of the reasons; T 248/85, OJ EPO 1986, 261, point 9.1 of the reasons). This "problem-solution approach" ensures assessing inventive step on an objective basis.

4.1.1 The patent in suit is directed to a diaper or feminine protection article containing a composition comprising a cooling agent (a) selected from ketals, carboxamides or specific menthol derivatives in combination with an ester (b) according to formulae (I) or (II). A similar product is already disclosed in document (E12).

4.1.2 Document (E12) discloses a process for the preparation of a hygienic article, such as a diaper. During the preparation, a disinfecting or deodorising agent, such as an alcoholic solution of menthol, may be added to the cellulosic pulp before drying. The thus prepared cellulosic pulp is filled into a textile wrapper (cf. page 2, lines 41 to 45 and 62 to 71).

4.1.3 Respondent II also referred to document (D4) as a possible starting point for the assessment of inventive step. This document relates to cooling compositions based on a ketal and a secondary coolant, some of the coolants being menthol derivatives. The cooling compositions of document (D4) may be used in a broad range of applications such as edible or potable compositions, medicaments, tobacco, adhesive labels and cosmetics including creams, dentifrices and cleansing tissues. However, document (D4) does not describe the specific use in diapers or feminine protection articles which is different from the use in cleansing tissues. The Board concludes, therefore, that document (D4) represents prior art which is further away from the patent in suit than document (E12).
4.1.4 Therefore, the Board, in agreement with the Opposition Division and the Appellant takes document (E12) as the closest prior art for the assessment of inventive step.

4.2 According to the Appellant, the technical problem was to provide a diaper or feminine protection article having improved comfort for the wearer.

4.3 As a solution to this problem, the patent in suit provides the diaper or feminine protection article according to claim 1 of the main request which is characterised in that it contains a cooling agent as defined in (a) which may be a menthol derivative, in combination with an ester (b) according to the formulae (I) or (II).

4.4 To demonstrate that the article achieves the alleged improvement, the Appellant stated that it belonged to the common general knowledge of the skilled person that menthol and derivatives thereof had a cooling effect. He further referred to paragraph [0013] of the patent specification which stated that in particular the esters according to formulae (I) or (II) were responsible for creating the sensation of improved comfort, and to the results of Example B in paragraph [0150] of the patent specification which showed that panty liners wherein the topsheet was sprayed with a composition according to the invention were found to improve comfort to the wearer in use.

4.4.1 According to the jurisprudence of the Boards of Appeal, alleged but unsupported advantages cannot be taken into consideration for the determination of the problem underlying the claimed invention (see e.g. decision T 20/81, loc. cit.).
4.4.2 The patent in suit does not contain any example which could demonstrate that adding a compound (a), such as menthyl lactate, together with an ester according to formulae (I) or (II) to the cotton pulp forming the core structure of the diaper results in improved comfort for the wearer. The results of Example B are not compared with the closest state of the art, namely Document (E12), and are only for the case where the composition was applied to the topsheet structure. Further, the specific effect alleged for the esters of formulae (I) or (II) has not been supported by any corroborating evidence. Moreover, it does not seem plausible that a combination of a cooling agent and an ester which has been added to the core structure of a diaper has any noticeable effect on the wearer, since the skin of the wearer does not come into contact with the core structure of the diaper.

4.4.3 Therefore, the alleged improvements cannot be taken into account for the success of the solution of the technical problem.

4.4.4 Consequently, the technical problem as stated above has not been successfully solved, but has to be reformulated in a less ambitious manner, namely as the provision of an alternative diaper or feminine protection article.

4.5 Document (E7) discloses cosmetic compositions suitable for application to the skin comprising compounds according to the definition of component (a), such as menthyl lactate and menthoxypantenediol together with cosmetically acceptable carrier (cf. page 3, lines 3 to 11). The list of possible carriers includes various lactates according to the definition of component (b)
of the patent in suit (cf. page 7, line 30 to page 8, line 1). Therefore, a skilled person looking for an alternative would have considered adding the compounds known from document (E7) in order to solve the technical problem mentioned in paragraph 4.4.4 supra and would, thus, have arrived at the subject-matter of claim 1 of the main request without having to exercise any inventive skill.

4.6 For these reasons the Board concludes that the subject-matter of claim 1 does not involve an inventive step within the meaning of Articles 52(1) and 56 EPC.

First Auxiliary Request

5. Amendments

The first auxiliary request as submitted in the appeal proceedings is identical to the main request on which the decision under appeal was based.

Claim 1 of the present first auxiliary request is based on the wording of claim 1 of the present main request which is further restricted to the composition being contained in the topsheet structure of the diaper or feminine protection article. A basis for this amendment is to be found on page 30, lines 7 to 10 of the original application documents. The amendments have not been objected to under Article 123 EPC. Dependent claims 2 to 7 are based on granted claims 2 to 6 and 9, respectively.

Since the amendment also restricts the scope of claim 1 as granted, the Board is satisfied that the amendments fulfil the requirements of Article 123(2) and (3) EPC.
6. **Inventive step**

6.1 The document representing the closest state of the art and the technical problem as presented by the Appellant and outlined in paragraphs 4.1 and 4.2 *supra* remain the same for the first auxiliary request.

6.2 As a solution to this problem, the patent in suit provides the diaper or feminine protection article according to claim 1 of the first auxiliary request which is characterised in that it contains a composition comprising a cooling agent as defined in (a) in combination with an ester (b) according to the formulae (I) or (II) in the topsheet structure.

6.3 Even though the Appellant has not provided any evidence, it is plausible that adding a known cooling agent to the topsheet structure of a diaper leads to an immediately noticeable comforting effect for the wearer, since the cooling composition is in close vicinity to the wearer's skin, whereas the arrangement of the same composition within the core structure of the diaper, as taught in the prior art document (E12), does not. Therefore, the more ambitious problem as set out in paragraph 4.2 *supra* has been successfully solved by the subject-matter of the first auxiliary request.

6.4 It remains to be decided whether or not the proposed solution is obvious in view of the state of the art.

6.5 The closest prior art document (E12) teaches on page 2, lines 62 to 71 that specific additives may be added to the cellulosic pulp. In particular it refers to "a disinfecting and/or deodorizing agent or a hemostatic agent". The specific compounds exemplified thereafter
comprise also an alcoholic solution of menthol. Therefore, the skilled person, when reading document (E12), would primarily identify the alcoholic menthol solution as being either a deodorizing or disinfecting or hemostatic agent, but he would not specifically recognize it as a cooling agent. In order to provide the wearer with improved comfort the skilled person would, therefore, have had no incentive to turn towards cooling compositions such as menthol derivatives, let alone to arrange this cooling agent in the topsheet structure of the diaper or feminine protection article. None of documents (E1) to (E10) or (D1) to (D7) relate to improving the comfort for the wearer of a diaper or feminine protection article, such that the skilled person would not have combined their teachings with that of document (E12). Therefore, the teaching of the closest prior art document (E12), in combination with any of documents (E1) to (E10) or (D1) to (D7) would not have led the skilled person to the invention as defined in claim 1 of the first auxiliary request.

6.6 For these reasons, the Board concludes that the subject-matter of claim 1, and by the same token that of dependent claims 2 to 7, according to the first auxiliary request involves an inventive step within the meaning of Articles 52(1) and 56 EPC.

7. Remittal

7.1 Having so decided, the Board has not, however, taken a decision on the whole matter, since the decision under appeal dealt with lack of novelty and lack of inventive step only with respect to documents (E1) to (E10), (E12) and (D1) to (D7). The above findings have the effect that the reasons given in the contested decision for revoking the patent no longer apply. The Opposition
Division has, however, not yet ruled on novelty or inventive step with respect to the alleged prior use as brought forward by Opponent 1/Respondent I in connection with document (E11). Therefore, the Board considers it appropriate to exercise its power conferred on it by Article 111(1) EPC to remit the case to the Opposition Division for further prosecution of the outstanding issues.

Second Auxiliary Request

8. Since the subject-matter of the preceding first auxiliary request involves an inventive step, there is no need for the Board to decide on the lower ranking second auxiliary request.
Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the Opposition Division for further examination on the basis of the first auxiliary request (claims 1 to 7) as filed with letter dated 29 July 2010.

The Registrar: The Chairwoman:

C. Rodríguez Rodríguez J. Mercey

Decision electronically authenticated